

SCHEMATIC REPRESENTATION OF DEN POLYPROTEIN MATURATION.

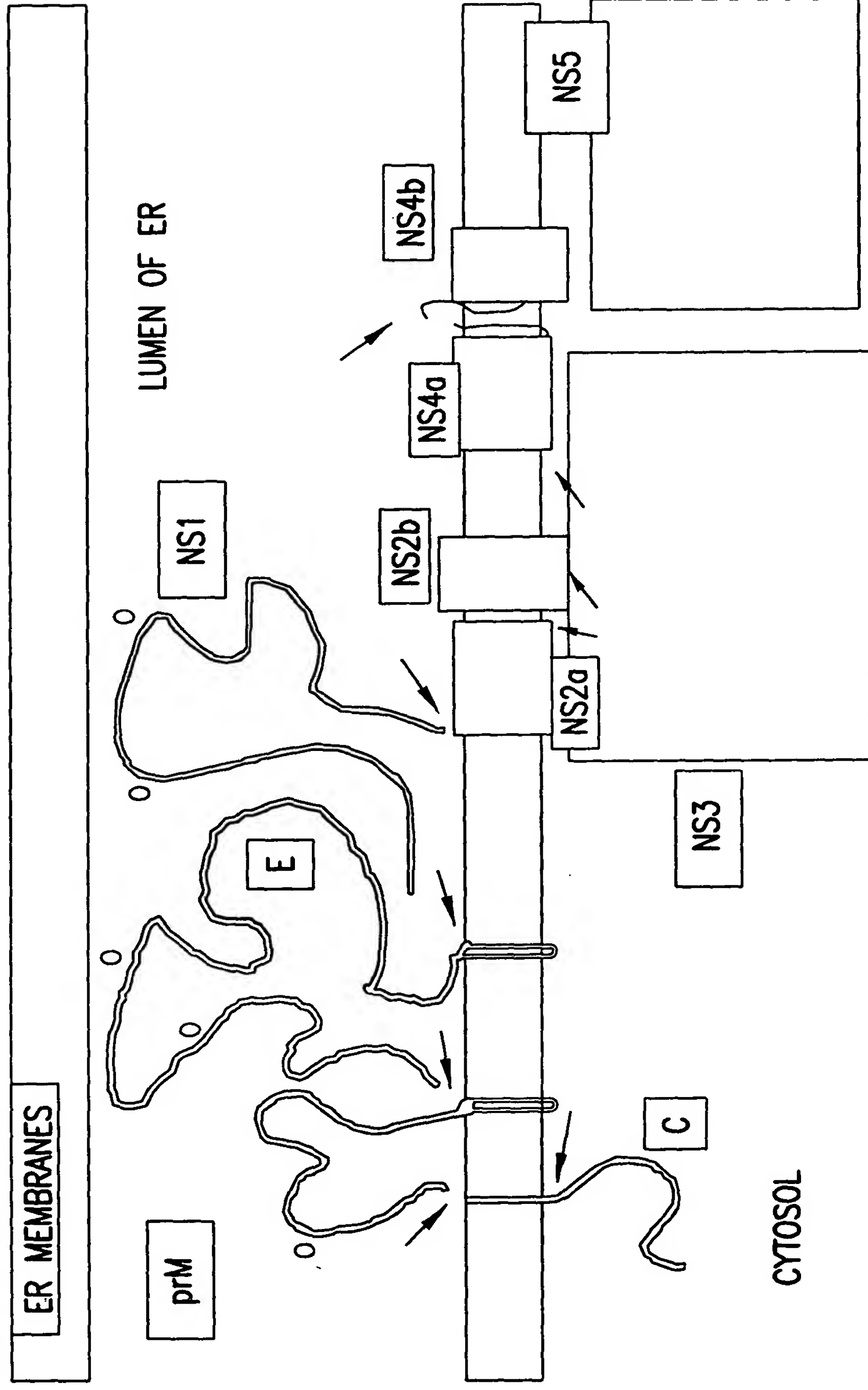


FIG.1A

SCHEMATIC REPRESENTATION OF RECOMBINANT prM AND E PROTEINS

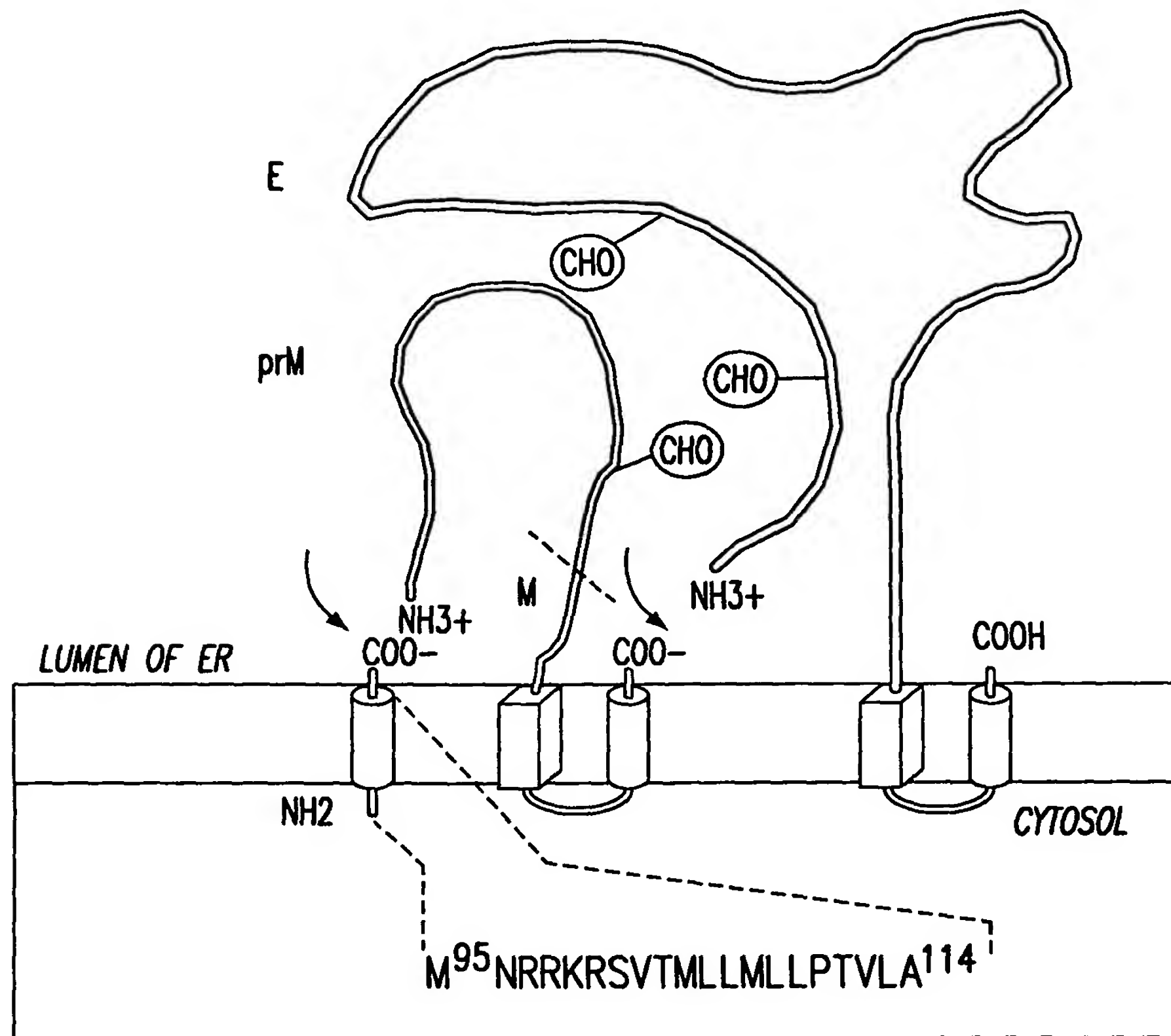


FIG.1B

SCHEMATIC DIAGRAM OF DEN VIRUS PROTEIN E MONOMER

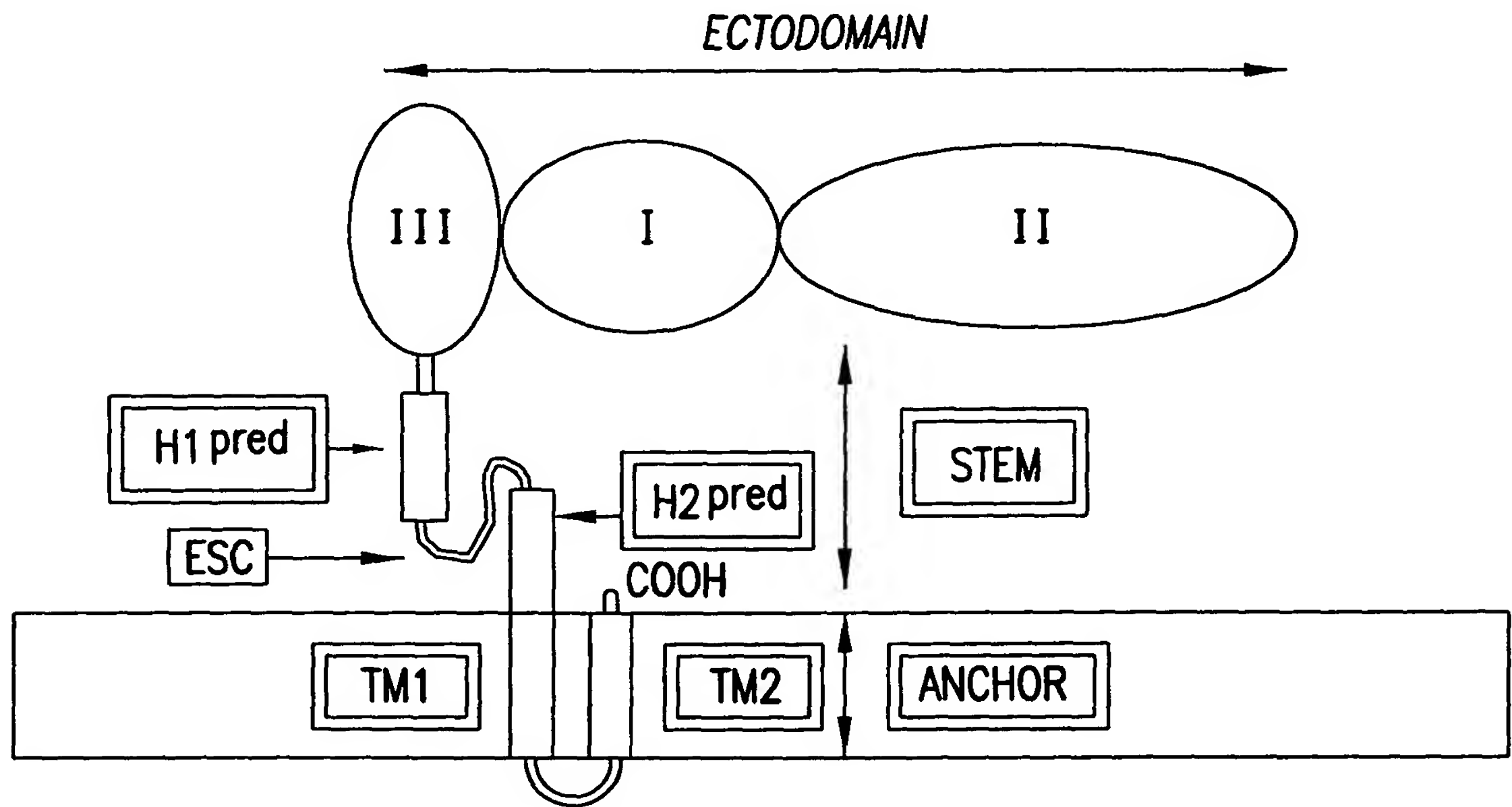
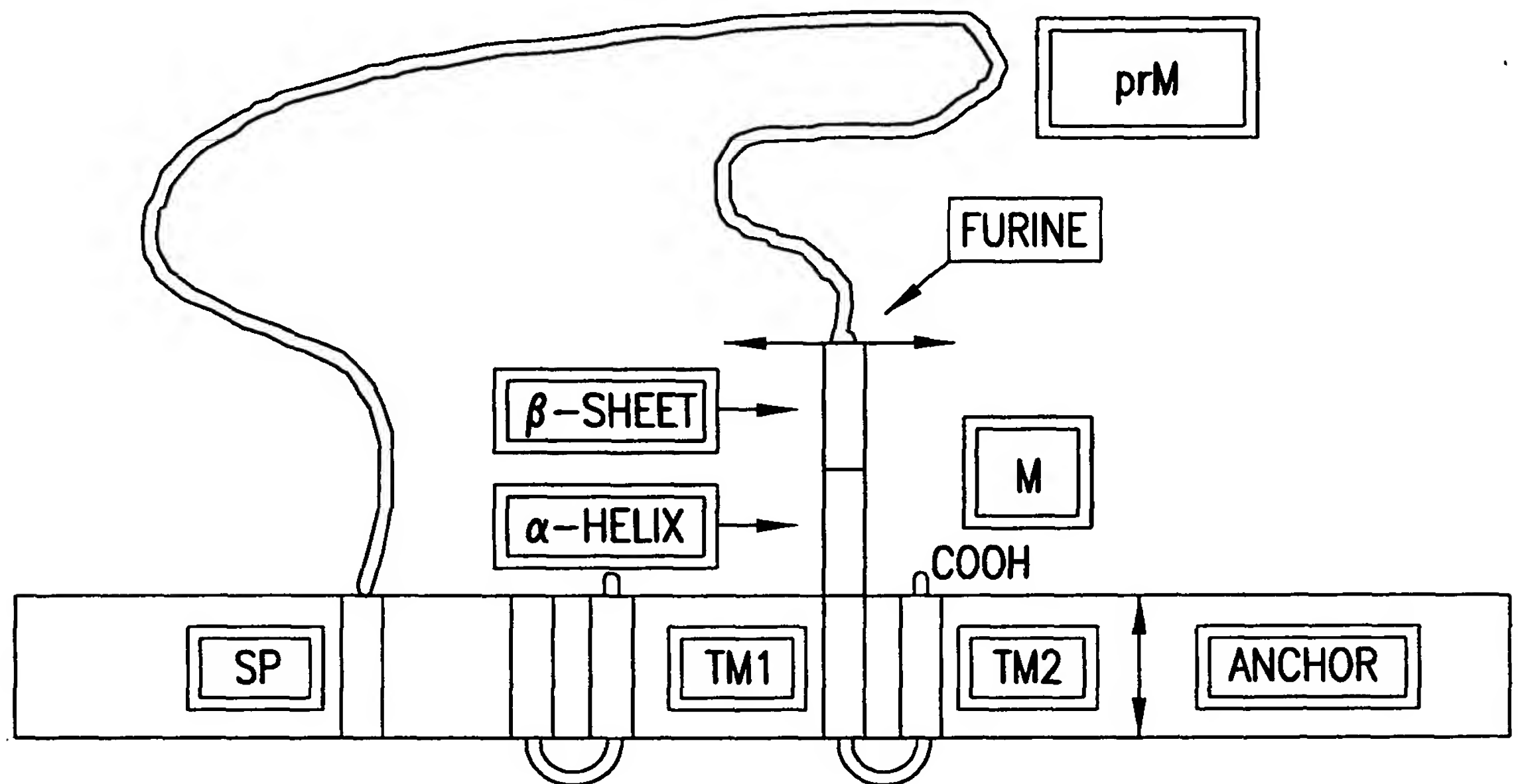


FIG.2A

SCHEMATIC DIAGRAM OF DEN VIRUS PROTEIN prM/M



SCHEMATIC REPRESENTATION OF THE prM PROTEIN STRUCTURE

FIG.2B

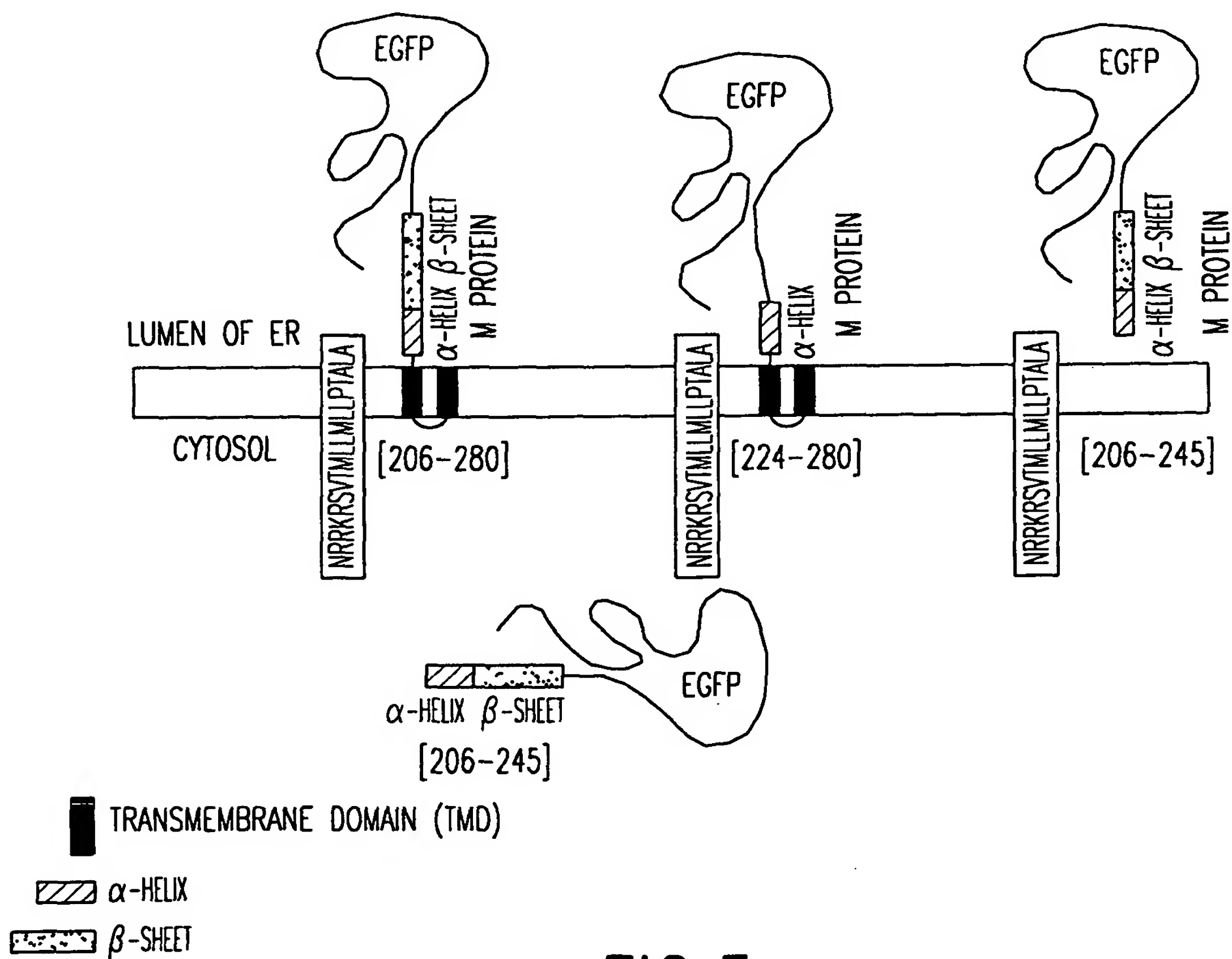
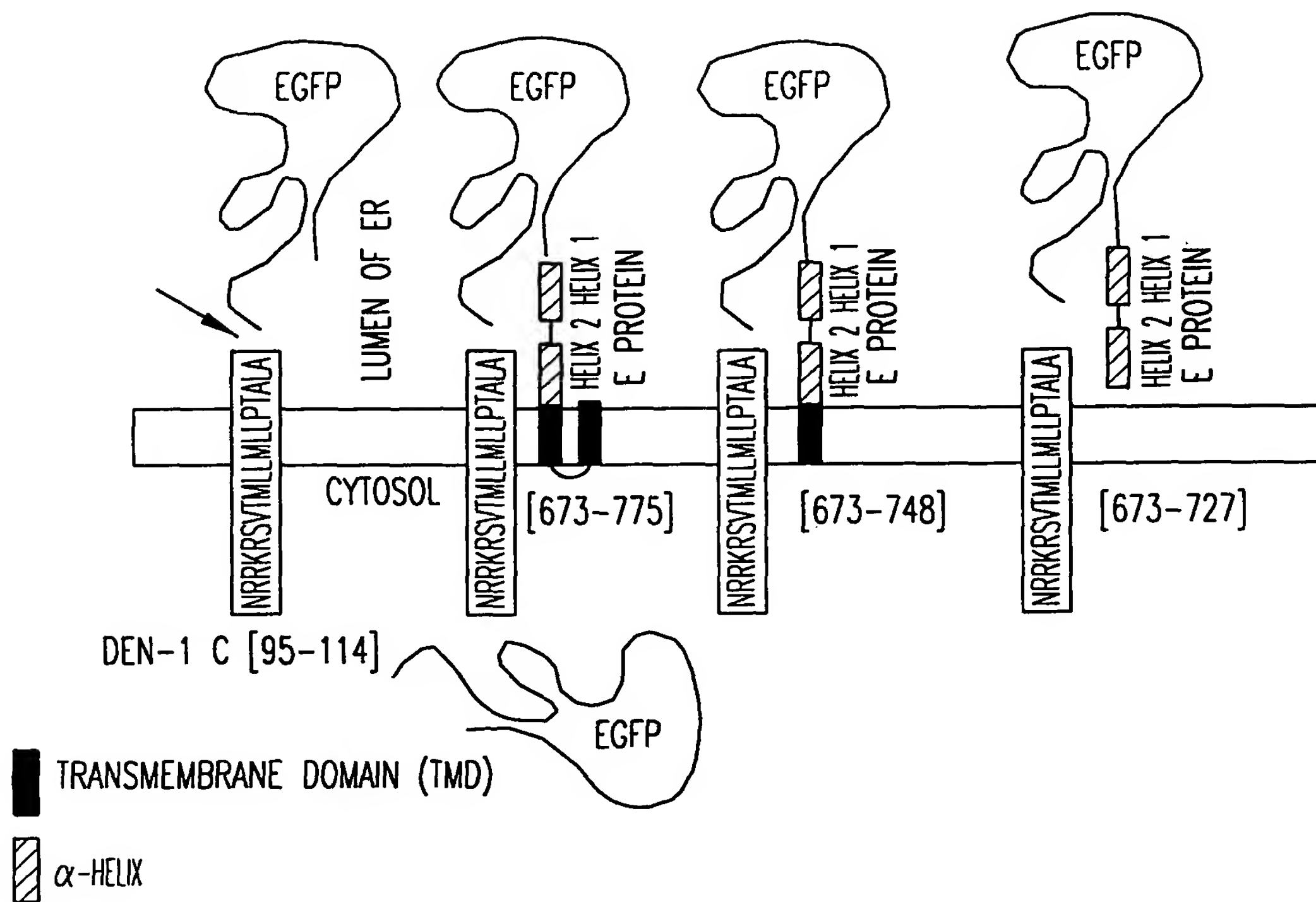


FIG.3

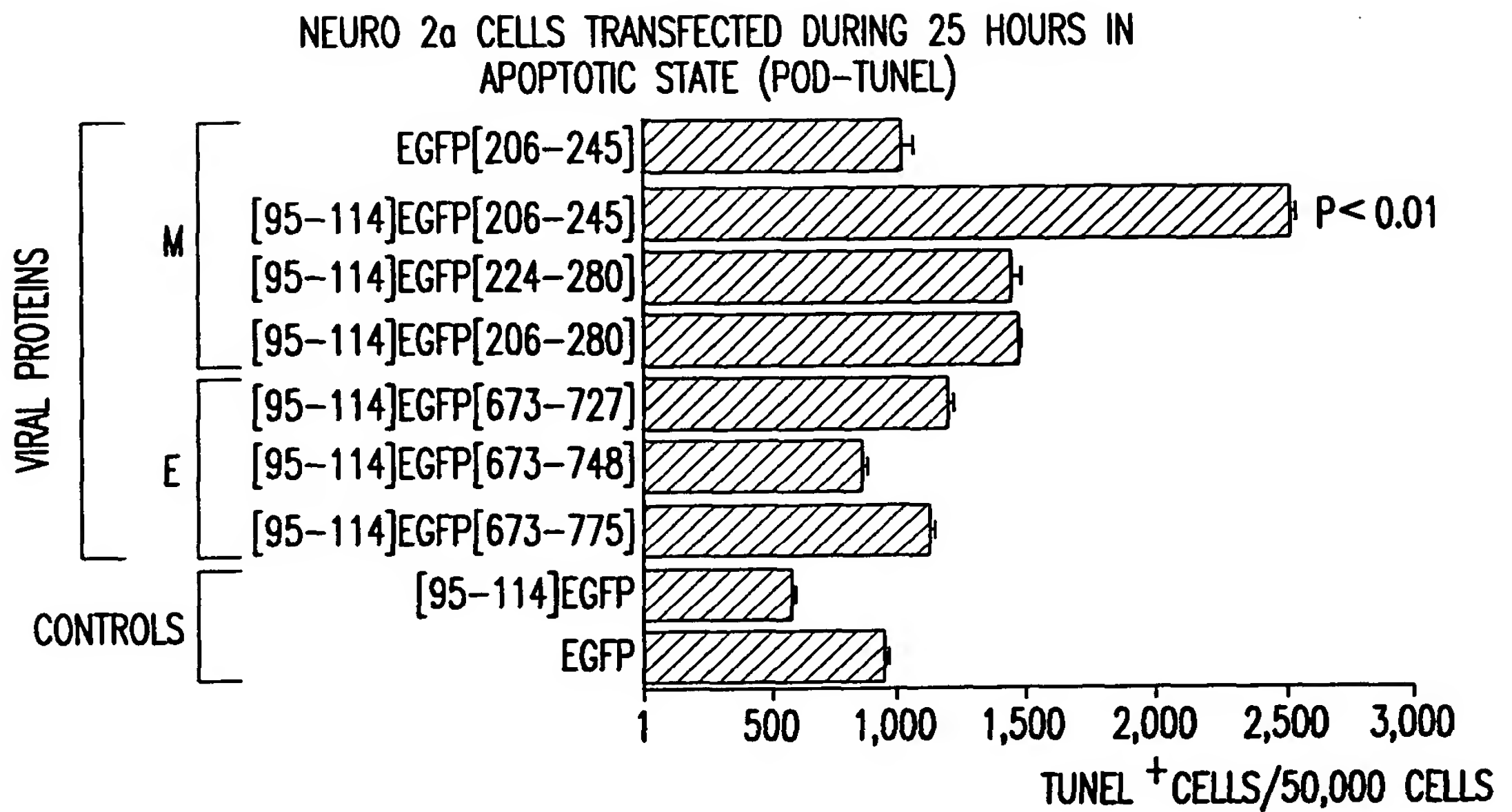


FIG.4A

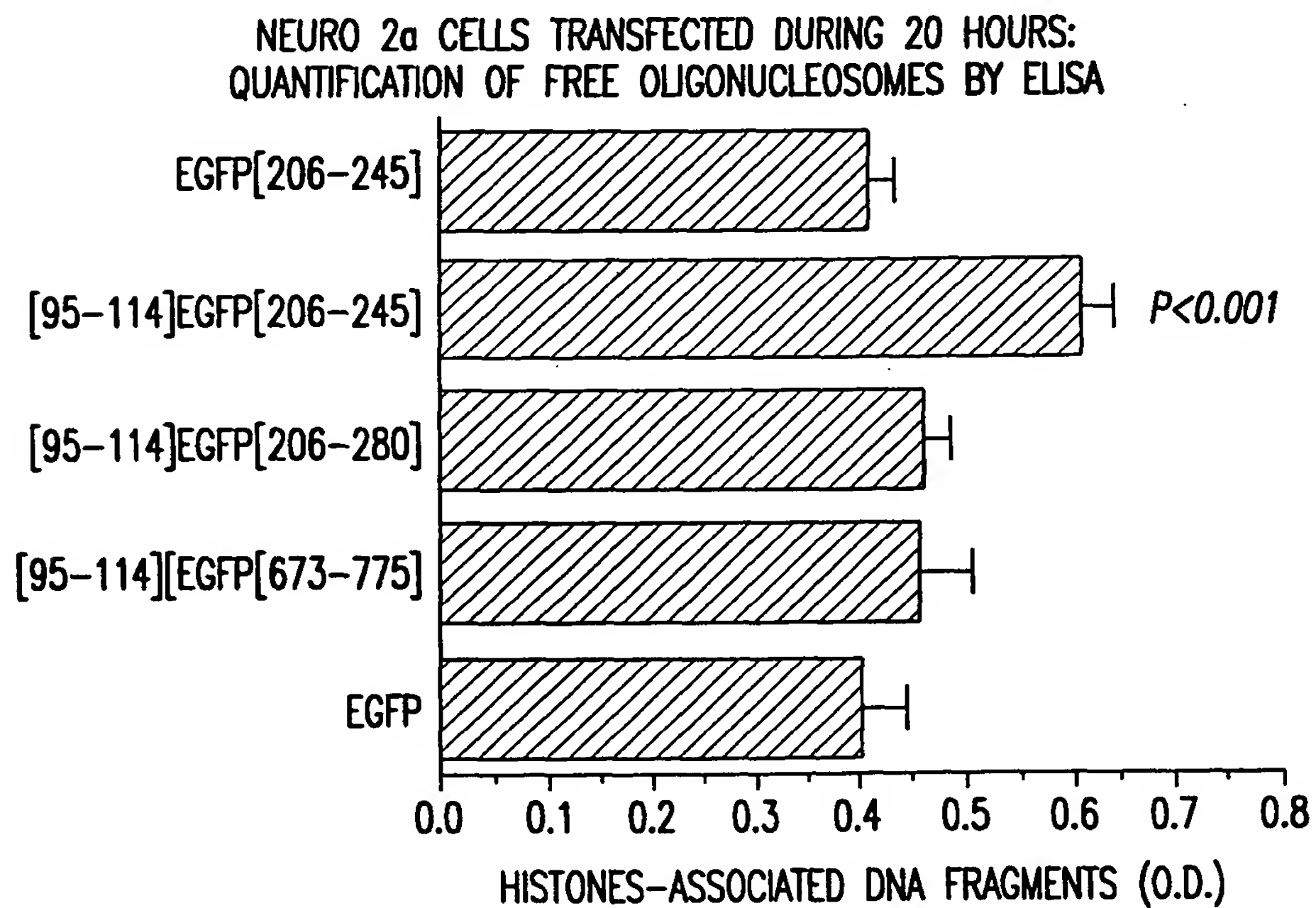


FIG.4B

NEURO 2a CELLS EXPRESSING THE [95-114]EGFP[206-245] FUSION PROTEIN
IN APOPTOTIC STATE (POD-TUNEL)

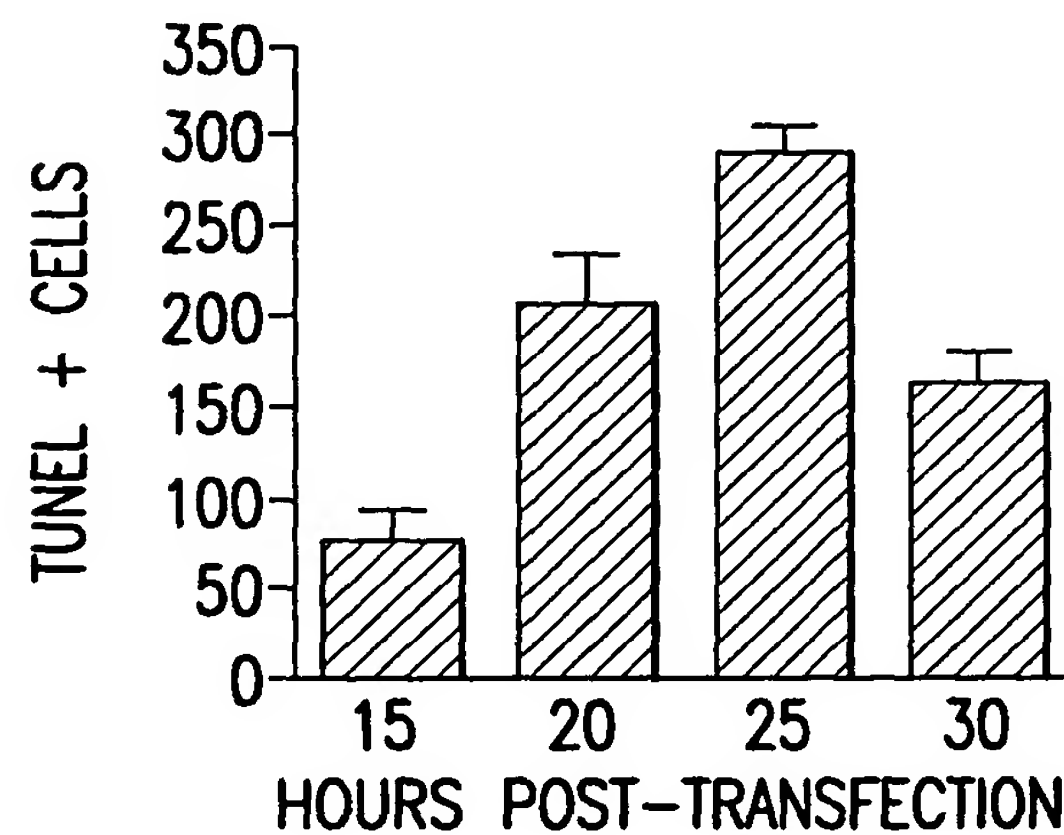


FIG.4C

HepG2 CELLS TRANSFECTED DURING 20 HOURS:
QUANTIFICATION OF FREE OLIGONUCLEOSOMES BY ELISA

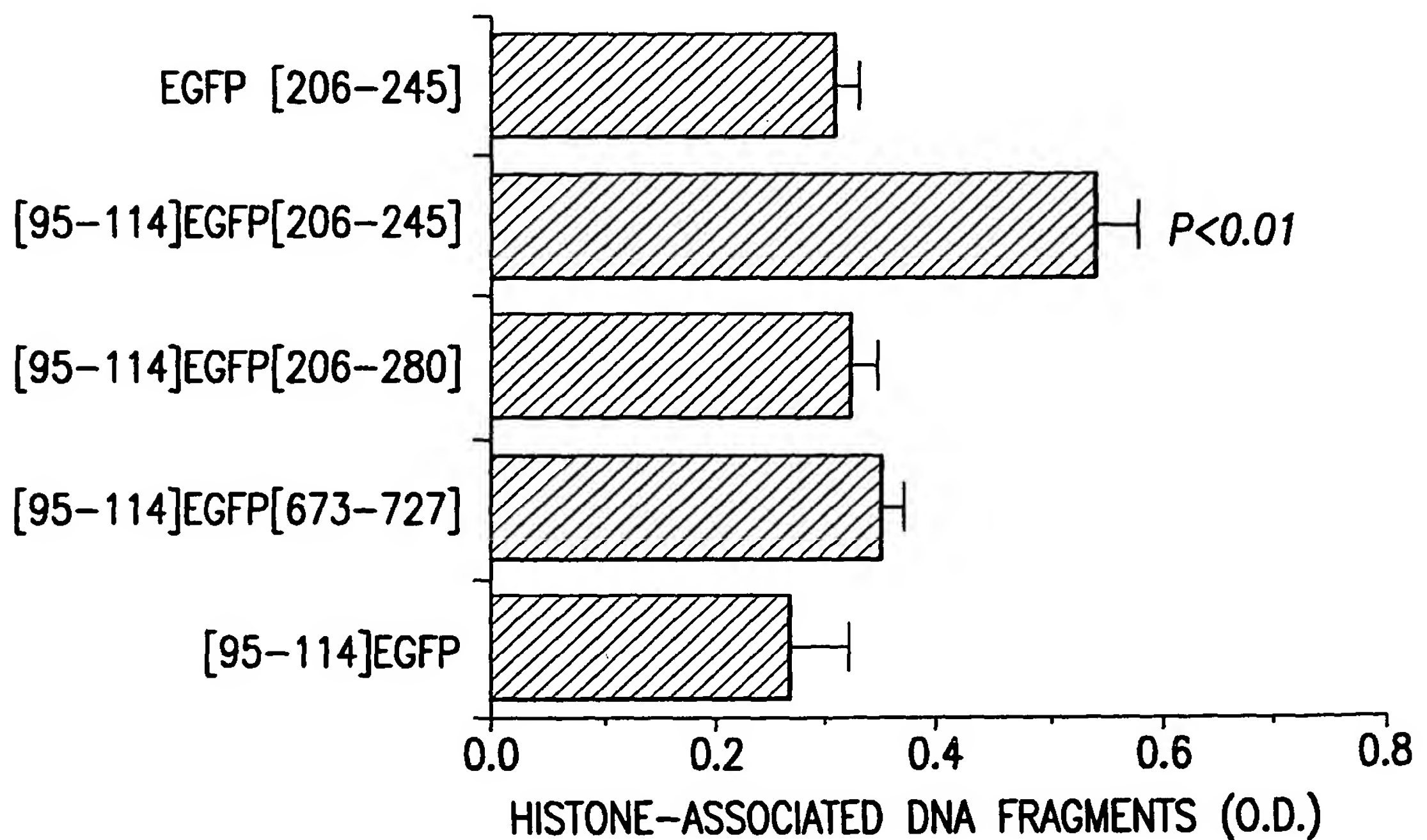


FIG.5A

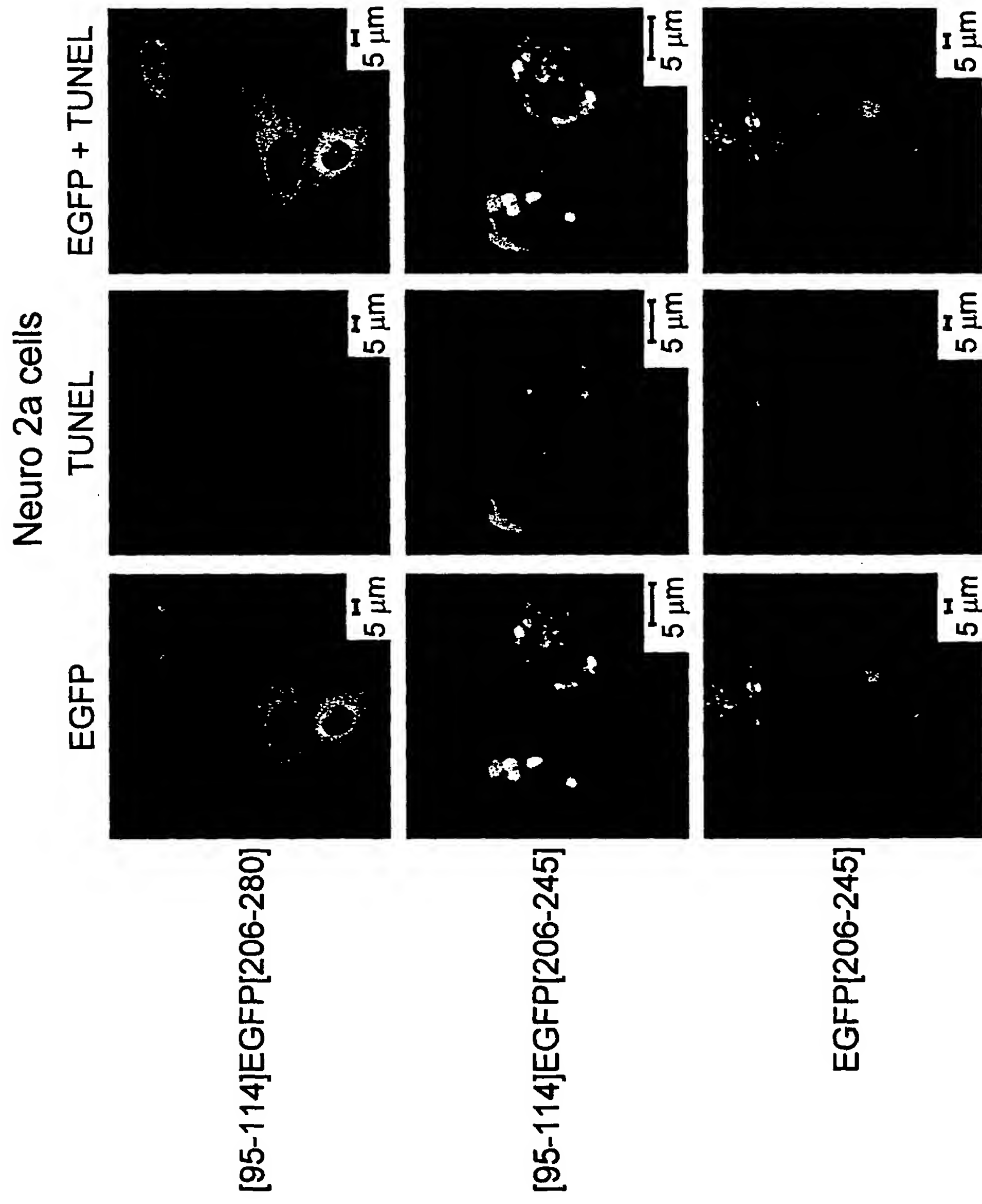


FIG.4D

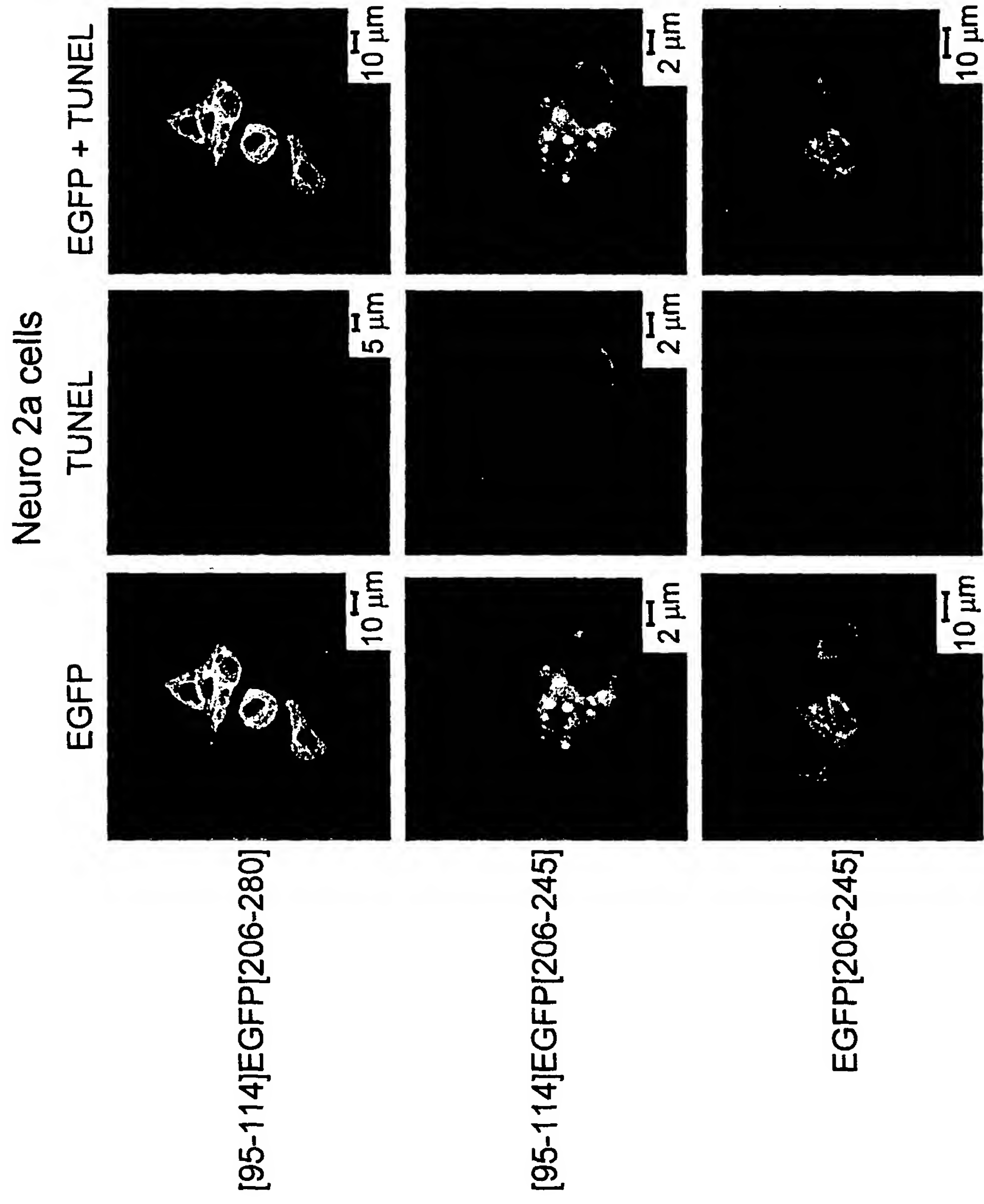


FIG.5B

Sequence of the plasmide p[95-144]EGFP[206-245]

Sequence in the 5' of the gene EGFP of the plasmide pEGFP-N1 (Clontech, #6085-1, Gene bank accession #U55762)

591 601 611 621 631 641 651 661 671 EGFP →

5'-G CTA CCG CTA CCG GAC TCA GAT CTC GAG CTC AAG CTT CGA ATT CTG CAG TCG ACC GTA CCG CGG GCC CGG GAT CCA CCG GTC GCC ACC ATG

Nhe I Sma I

Sequence of the virus Den-1 strain BR/90 in the 5' of the gene of 1'EGFP

sequence DEN-1 →

M N R R K R S V T M L L M L L P T A L A R E P P V A T M

5'-G CTA GCA ATG AAC AGG AGG AAA AGA TCC GTG ACC ATG CTC ATG CTC CCC ACA GCC CTG GCC CGG GAT CCA CCG GTC GCC ACC ATG

Nhe I Sma I

Sequence in the 3' of the gene EGFP of the plasmide pEGFP-N1

1380 1390 1400 1410

L A M • E E L • Y N ochre •

5'-CTC GGC ATG GAC GAG CTG TAC AAG TAA AGC GGC CGC ACT CTA

BsrG I Not I

Sequence of the virus DEN-1 strain FGA/89 on the 3' of the gene of 1'EGFP

P H V G L G L E T R T E T W M S S E G A W K Q I Q K V E T W

1380 1390

L A M • E E L • Y S S V A L A I A L R H P opal

5'-CTC GGC ATG GAC GAG CTG TAC AGT TCC GTG GCT CTG GCC.....GCT TTG AGA CAC CCA TGA TTGCGCGCGCGGACTC

BsrG I Not I

FIG.6

Cells expressing the [95-114][211-245] fusion protein

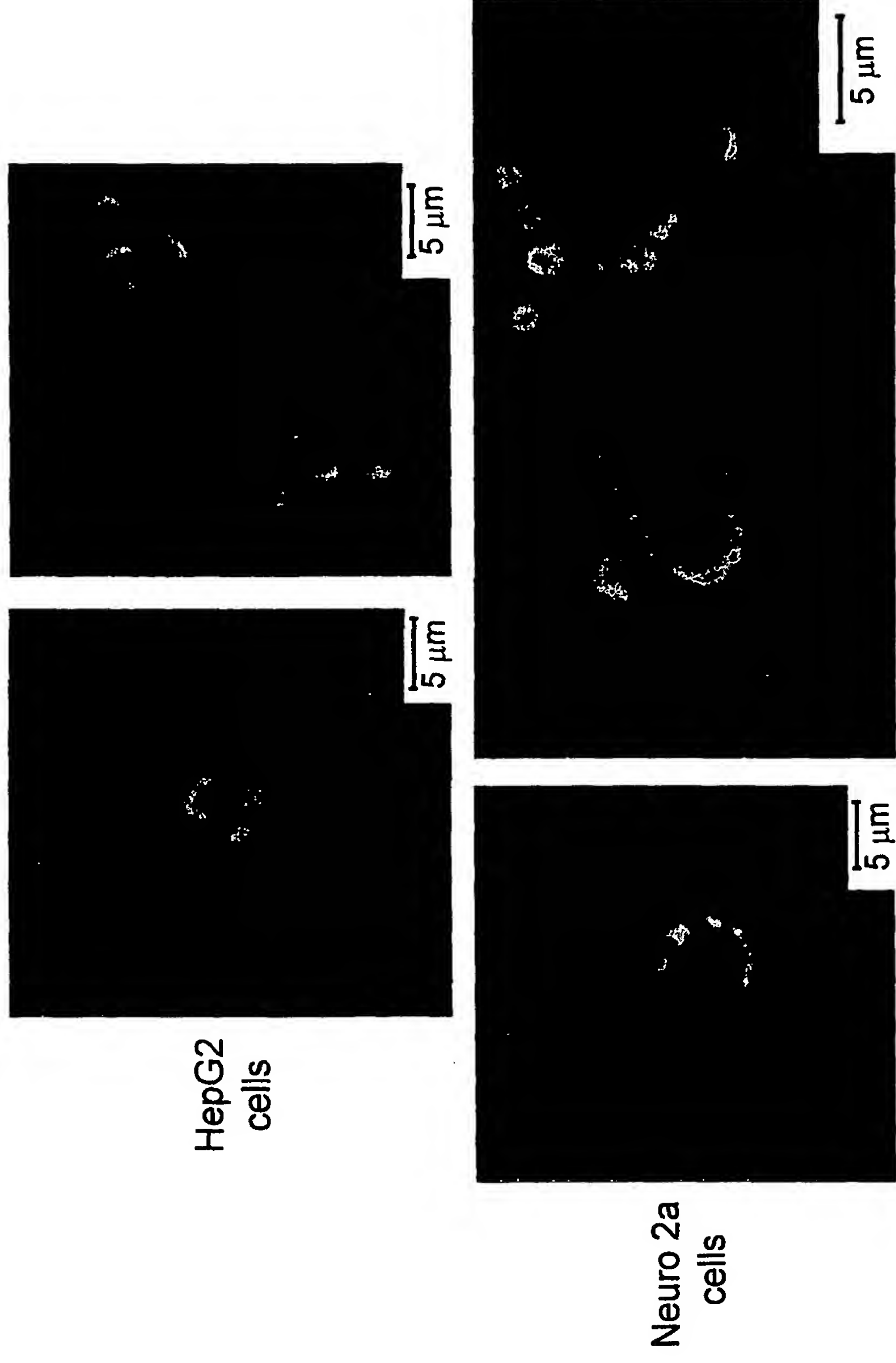


FIG.8

SIMILARITY AND IDENTITY BETWEEN DEN VIRUS AND WN VIRUS

M (West-Nile virus strain IS-98 ST1) 215 255
RSLTVQTHGESTLANKKGAWMDSTKATRYLVKTESWILRNP
SVALAPHVGLGLETRTETWMSSEGAWKQIQKVE TWALRHP 206 245

M (DEN-1 virus strain FGA/89)
32% identity, 66% similarity

Protein M sequences of strains NY99-flamingo382-99 (Genpept access : AF196835 1) and HNY1999 (Genpept access : AF202541 1) and isolate 2741 (Genpeptnew access : AF206518 1) of West-Nile virus are identical to that of WN strain IS-98 ST1.

FIG.9

Similarity and Identity

Sequence of the protein M of the virus DEN-1/CD72

M (virus DEN-1, strain FGA/89)

S V A L A P H V G L G L E T R T E T W M S - S E G A W K Q I Q K V E T W A L R H

S P A L A D K A G V G S E Q P T A T W S S V K S S A L R Q I P R C P T V C L Q N

CD72 (aa 56-95)

40% identity

Swiss Prot Library under Accession NosP21855

Peptide 217-242 of the protein M of the virus DEN-1/Bax

L E T R T E T W M S S E G A W K Q I Q K

DEN-1

L R E R L L G W I Q D Q G G W D G L L S

BH2 (Bax)

identity 25%, similarity 70%

GenBank Data Library under Accession NosQ 07812

Sequence 217-242 of the protein M from Flavivirus

L E T R T E T W M S S E G A W K Q I Q K DEN-1

L E T R T E T W M S S E G A W K H A Q R DEN-2

L D T R T Q T W M S A E G A W R Q V E K DEN-3

L E T R A E T W M S S E G A W K H A Q R DEN-4

L S N K K G A W M D S T K A T R Y L V K KUN

L V N K K E A W L D S T K A T R Y L M K JE

L V N K K D A W L D S T K A T R Y L T K MVE

L A N K K G A W M D S T K A T R Y L V K WN

L A T K N T P W L D T V K T T K Y L T K SLE

L K T R Q E K W M T G R M G E R Q L Q K YF

L T G R G H K W L E G D S L R T H L T R TBE

L T G R G H Q W L E G E A V K A H L T R LANGAT

M V G T G H A W L K G D N I R D H V T R POW

DEN-1 GenBank Data Library under Accession Nos AF 226687

DEN-2 GenBank Data Library under Accession Nos M 20558

DEN-3 GenBank Data Library under Accession Nos M 93130

DEN-4 GenBank Data Library under Accession Nos M 14931

KUN GenBank Data Library under Accession Nos D 00246

JE GenBank Data Library under Accession Nos U 14163

MVE GenBank Data Library under Accession Nos GNWVMV

WN GenBank Data Library under Accession Nos AF 196835

SLE GenBank Data Library under Accession Nos AF M16614

YF GenBank Data Library under Accession Nos K 02747

TBE GenBank Data Library under Accession Nos X 07755

LANGAT GenBank Data Library under Accession Nos M 73805 et M86650

POW GenBank Data Library under Accession Nos L 06436

FIG.10

Sequence of the plasmide p[95-114]EGFP[206-245]DEN-2

Sequence in the 5' of the gene EGFP of the plasmide pEGFP-N1 (Clontech, #6085-1, Gene bank accession #U55762)

591 • 601 • 611 • 621 • 631 • 641 • 651 • 661 • 671 • EGFP →

5' G CTA CCG CTA CCG GAC TCA GAT CTC GAG CTC AAG CTT CGA ATT CTG CAG TCG ACC GTA CCG CGG GCC CGG GAT CCA CCG GTC GCC ACC ATG

Nhe I Sma I

Sequence of the virus DEN-1 strain BR/90 in the 5' of the gene of 1'EGFP

sequence DEN-1 →

M N R R K R S V T M L L M L L P T A L A R E P P V A T M

5' G CTA GCA ATG AAC AGG AGG AAA AGA TCC GTG ACC ATG CTC CTC ATG CTG CCC ACA GCC CTG GCC CGG GAT CCA CCG GTC GCC ACC ATG

Nhe I Sma I

Sequence in the 3' of the gene EGFP of the plasmide pEGFP-N1

1380 1390 1400 1410

L A M • E E L • Y N ochre • •

5' CTC GGC ATG GAC GAG CTC TAC AAG TAA AGC GGC CGC ACT CTA

BsrG I Not I

Sequence of the virus DEN-2 strain JAM in the 3' of the gene of 1'EGFP

P H V C M G L E T R T E T W M S S E G A W K I I V Q R I E T W

1380 1390

L A M • E E L Y R S V A L V ; I L R H P opa I

5' CTC GGC ATG GAC GAG CTC TAC AGA TCA GTG GCA CTC GTTATC TTG AGA CAT CCA TGA GCGCGCGCGACTC

BsrG I Not I

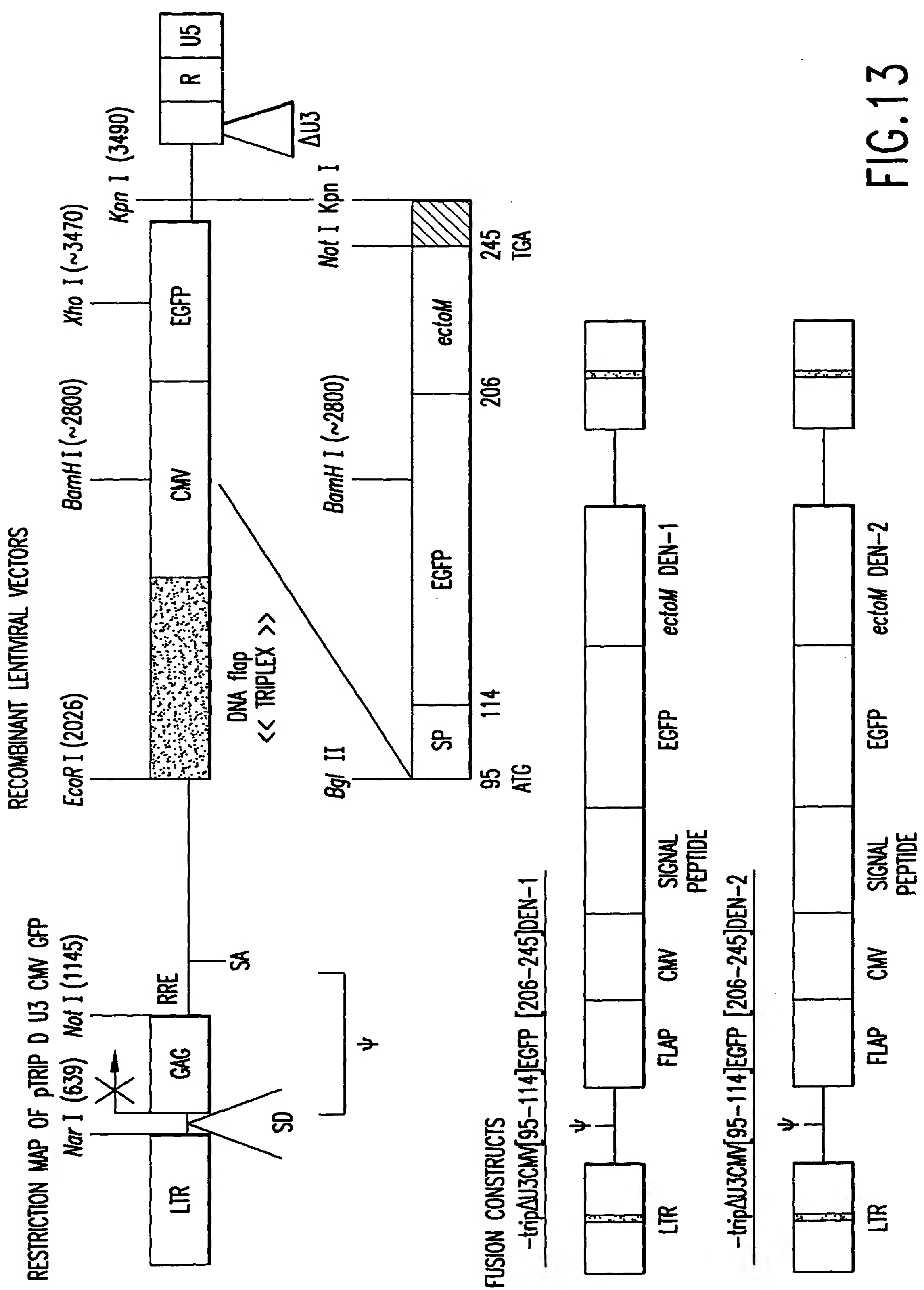


FIG.13

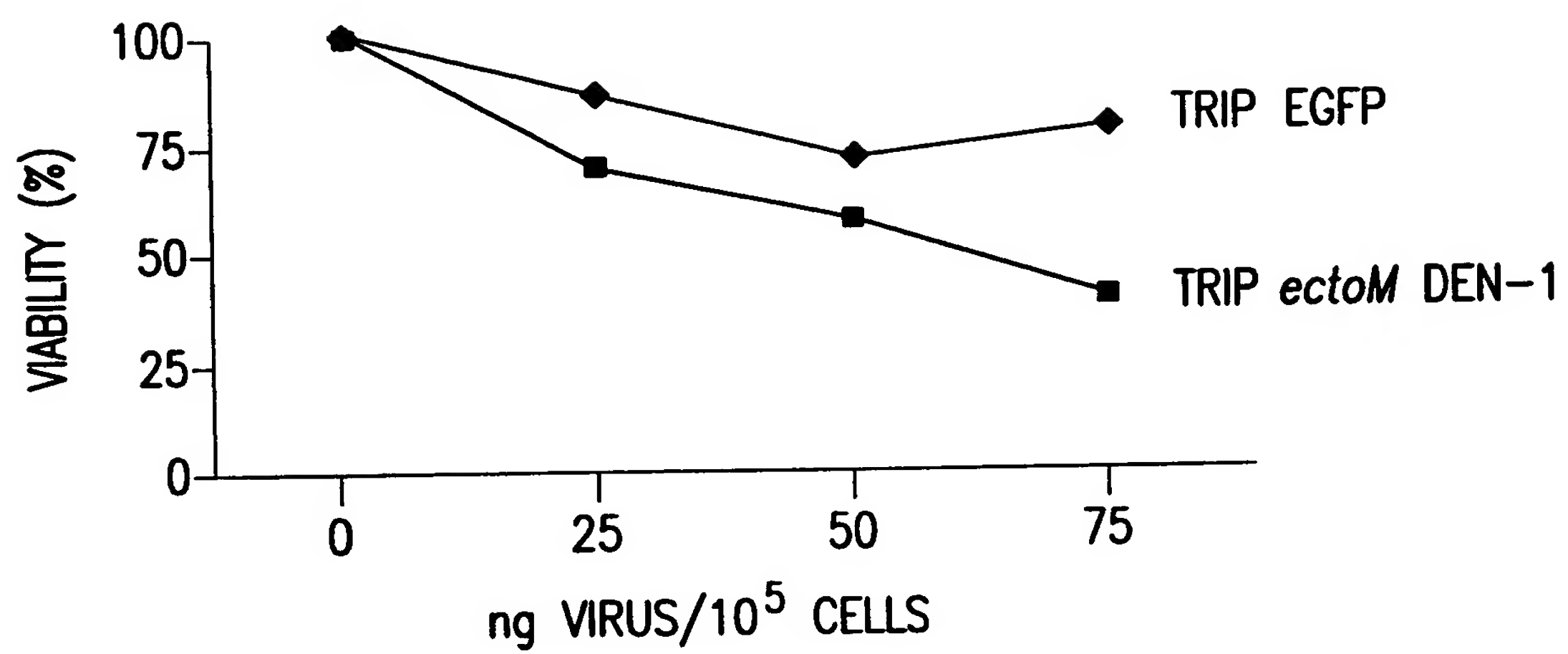


FIG.14

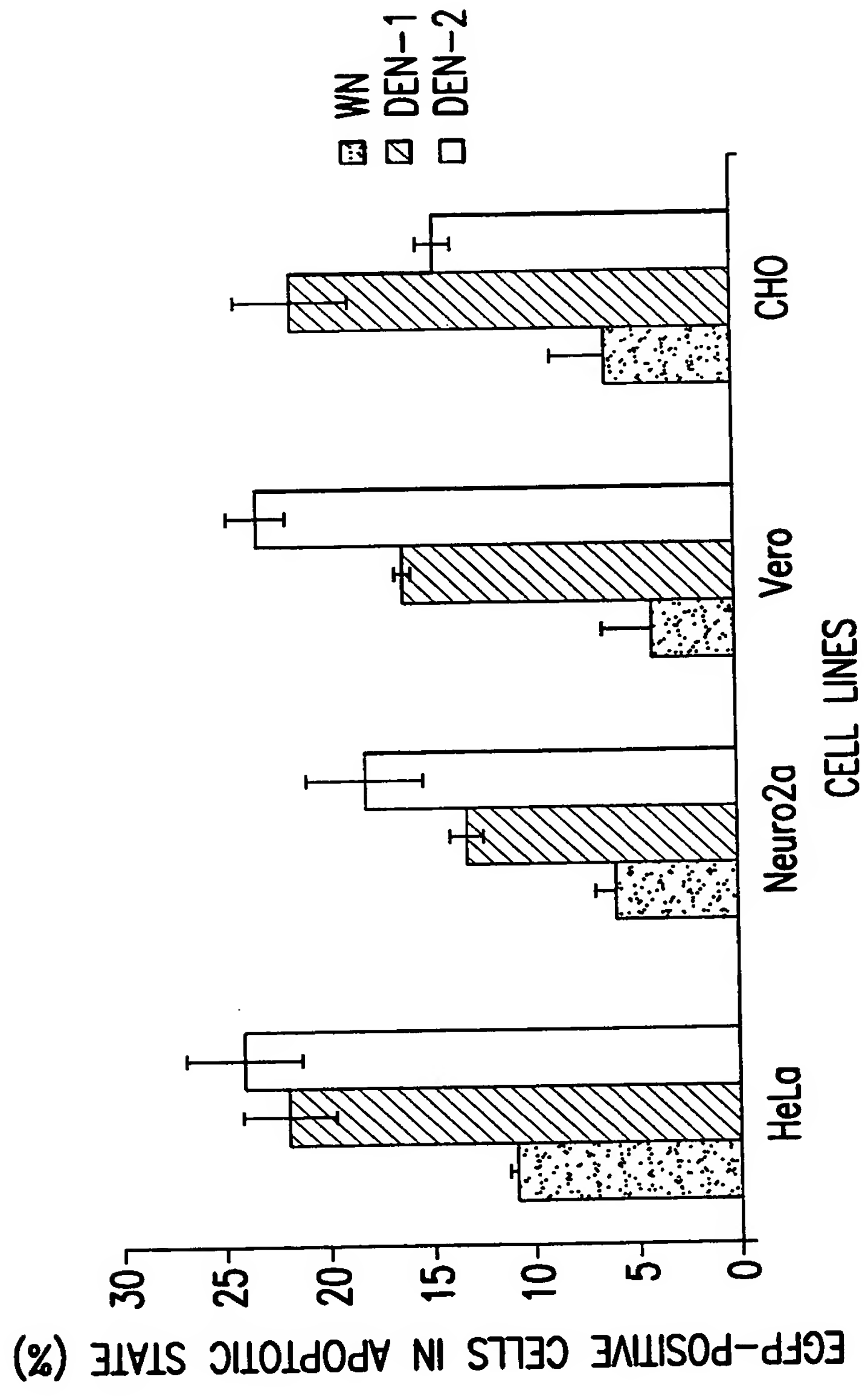


FIG.15